

2008 DNR Flood Recovery



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Bureau Chief, Field Services &
Compliance

Unprecedented Weather Events



May 25 - Parkersburg

DNR Responds - Tornadoes

Parkersburg, Sinclair, New Hartford, Onawa...

- Park and Conservation officers
 - Traffic control
 - Search and rescue
- Field Services
 - Assess damage
 - Keep water supply and waste water treatment running
 - Establish disposal sites
 - New issue - scrap metal values



Priority One: Safety

Unprecedented Weather Events

- May 29
- The floods began
 - Following 2007 - the 4th wettest year in 135 years
 - Heavy rains from May 29 to June 12



- *“Virtually the same combination of factors were present in 1993”*

» Harry Hillaker, State Climatologist

The Public Responds

- To keep public water and wastewater facilities safe
- To protect their neighborhoods



AmeriCorps

DNR Responds - Flooding

North Central, Central, Northeast, Southeast

Priority One: Safety



State Emergency Operations Center Opens – June 9

- DNR Emergency Response Team to staff
- Unified Command – Funnel all information through SEOC
 - coordinates emergency response through county coordinators for help
 - State
 - Federal agencies
 - Public policy through Governor's office
 - Rumor control through public information



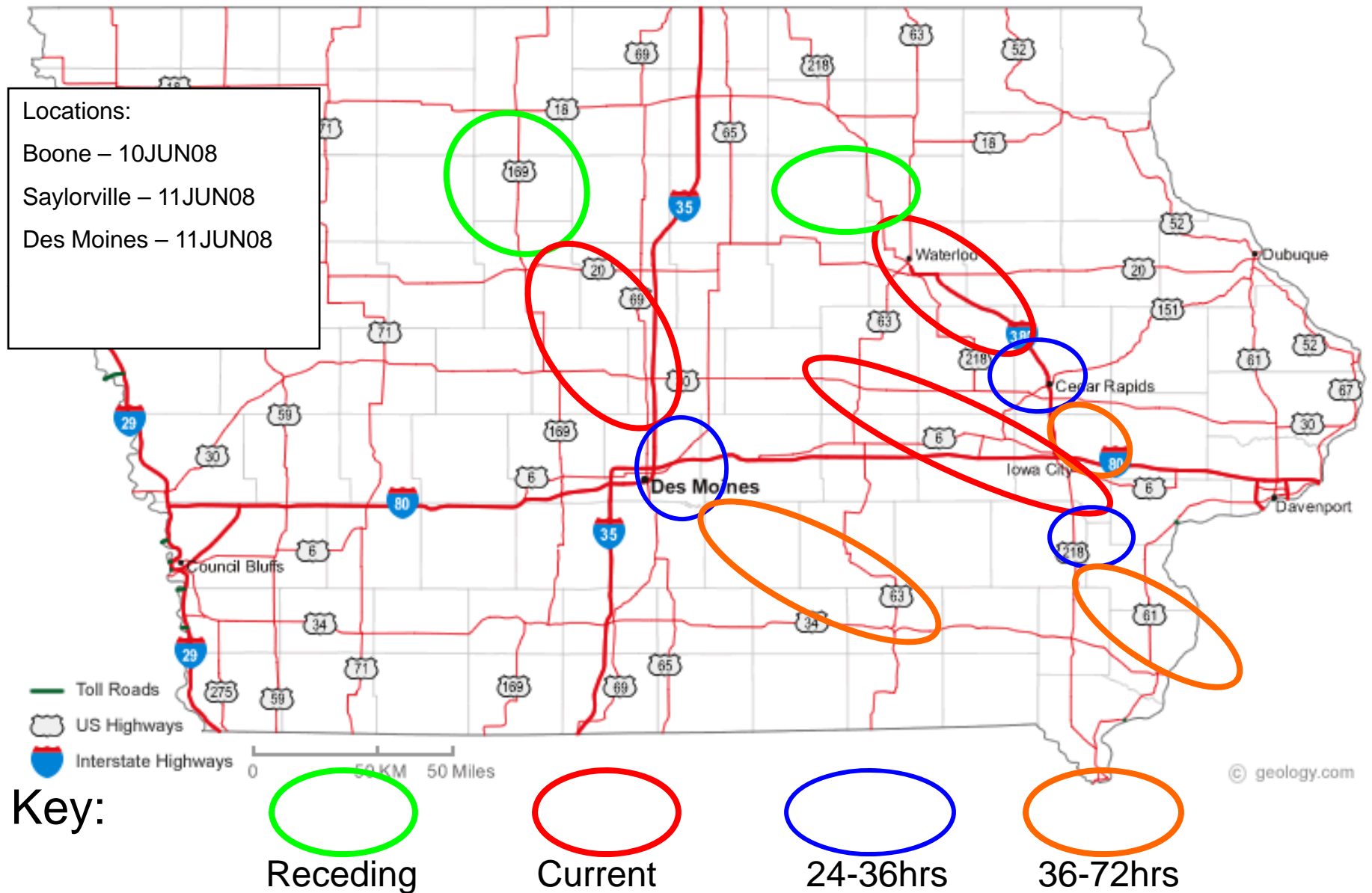
Situational Update

J5

101400JUN08

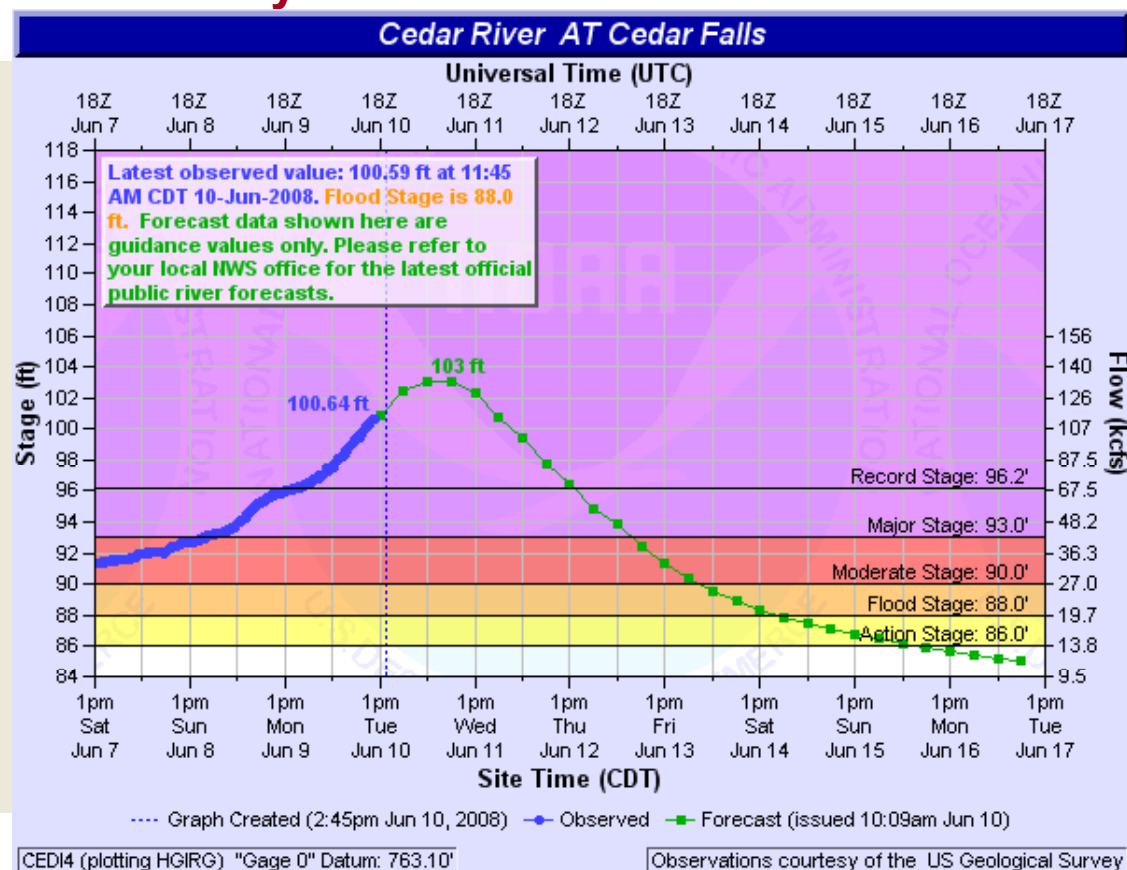
The situation remains precarious across much of Iowa. We are close to or exceeding 1993 flooding levels at several locations. We have a 45% chance of severe weather hitting Iowa starting Wednesday night continuing into Thursday night. This includes hail, tornadoes and heavy rainfall. Fortunately, the storms are predicted to be fast moving, but there will be a series of storms. This means that river crest predictions will change.

Projected Crests in AO



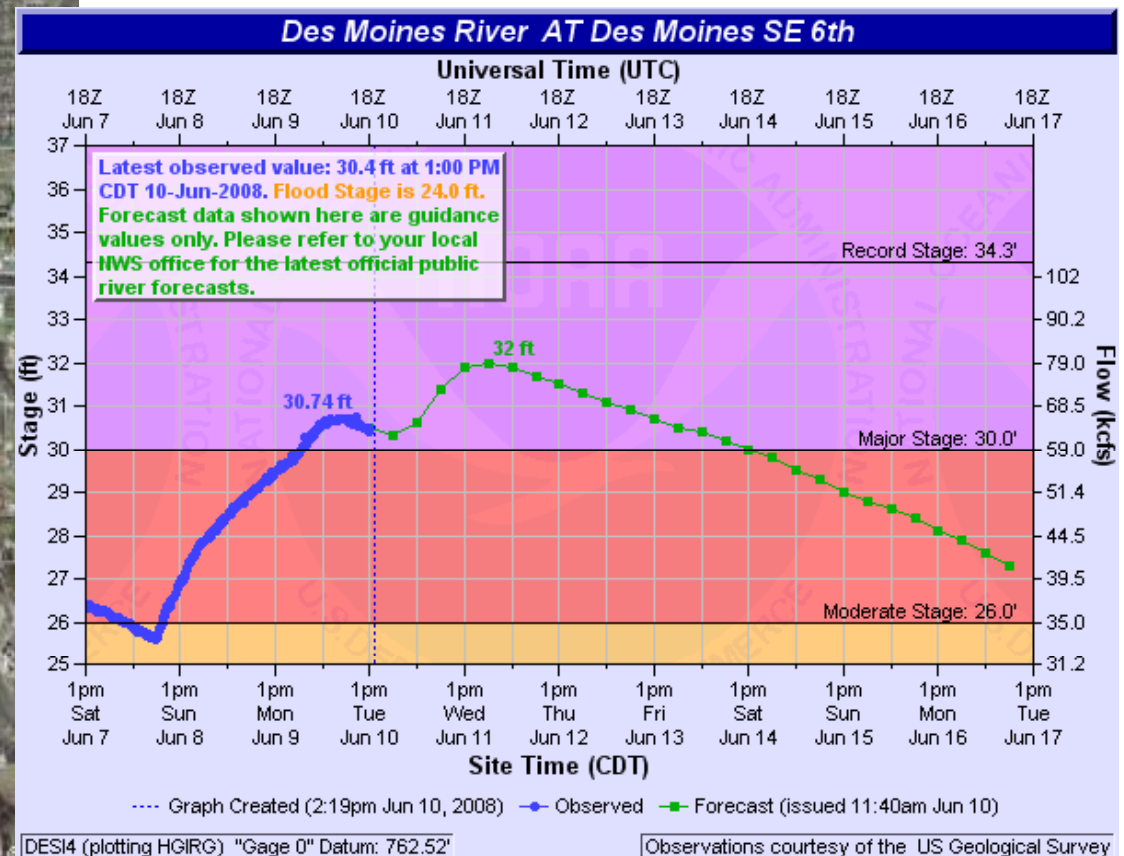
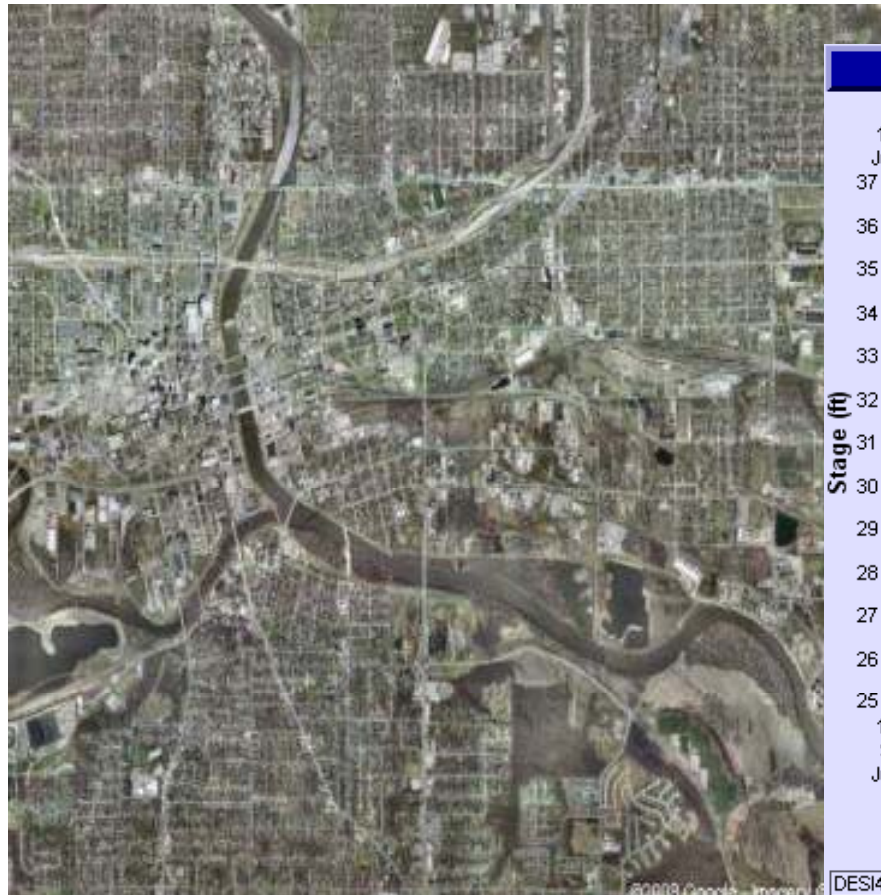
Cedar Falls – Cedar River

- Crest: 103 ↑ From 100.8
- DTG: 101700JUN08
- Known Impact:
 - Parks and Residences flooded**
 - Water Treatment Plant Surrounded** but operational – Aquifer System
 - Issues arise if pressure is lost within the system
 - Loss of Waste Water Treatment Facility**



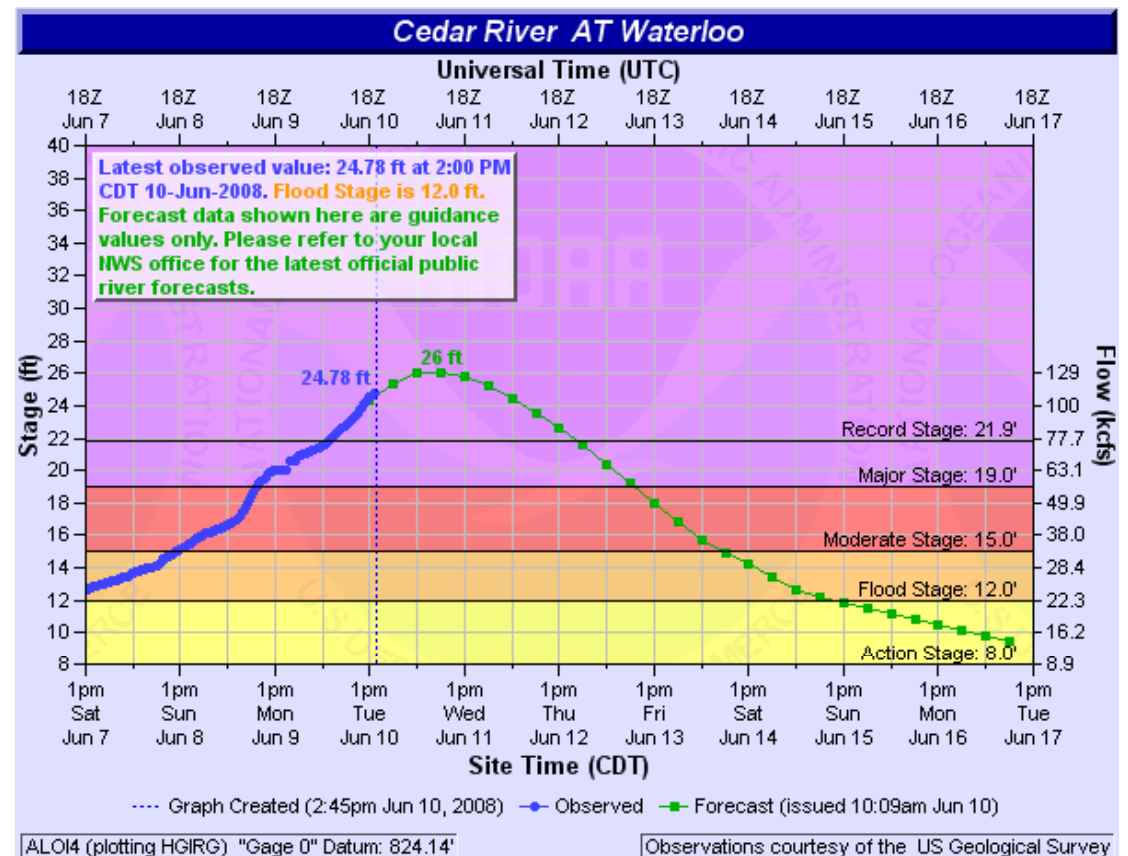
Des Moines – Des Moines River

- Crest: 32.3
- DTG: 111300JUN08
- Known Affects:
 - @26.5 Euclid avenue floods along with 3600 rural acres.
 - @24.5 Levee closures begin across Saylor Road and Guthrie. (North and East of Birdland Park).
 - @24.0 **Significant residential flooding occurs.**
 - @22.0 Minor residential flooding occurs, primarily along the right bank upstream from the gage site.
- Unknown: Affects based on Spillway release



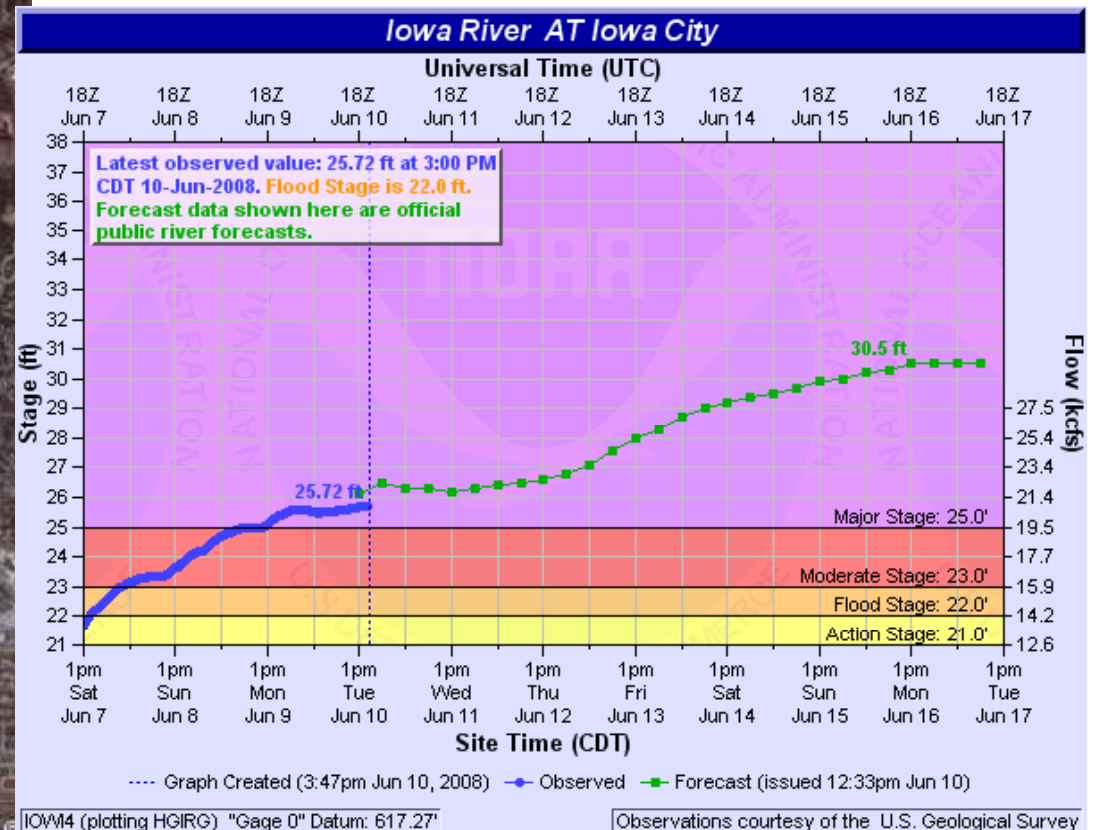
Waterloo – Cedar River

- Crest: 26 ↑ From 23.3
- DTG: 102000JUN2008
- Known Impact:
 - @**22 Water Wells (In danger)**
 - @26 Height of Levee design protection
 - @27 Height of Water Treatment Plant Protection

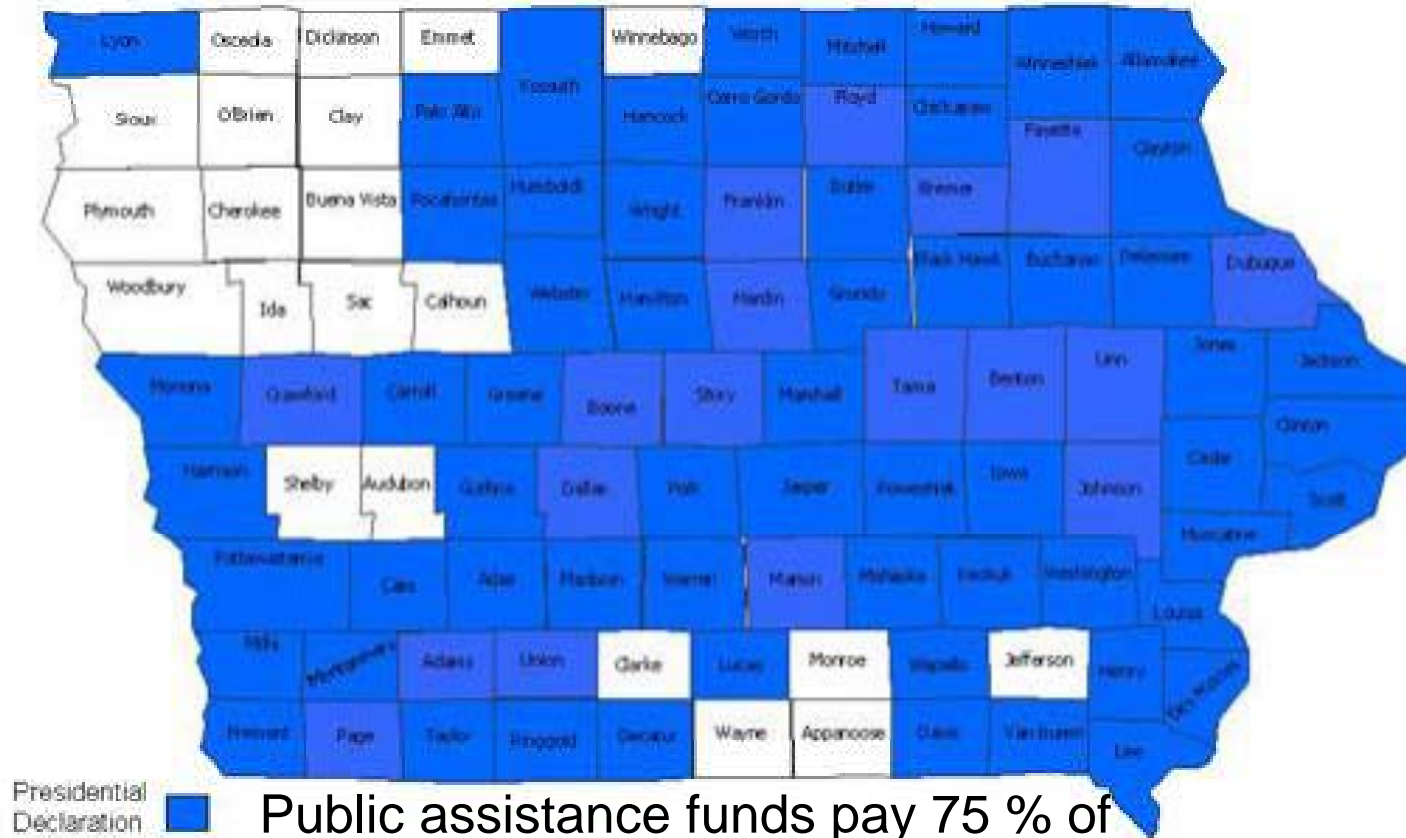


Iowa City - Iowa

- Crest: 30.5↑ From 28.8
- DTG: 161300JUN08
- Known Affects:
 - @23.5 Water **affects water treatment**
 - @25 Flooding Coralville
 - @27.0 Flood protection becomes necessary at the University of Iowa. Water affects several industrial businesses and warehouses along Commercial Drive.
 - @29.0 **Serious flood damage occurs at the University of Iowa campus.**



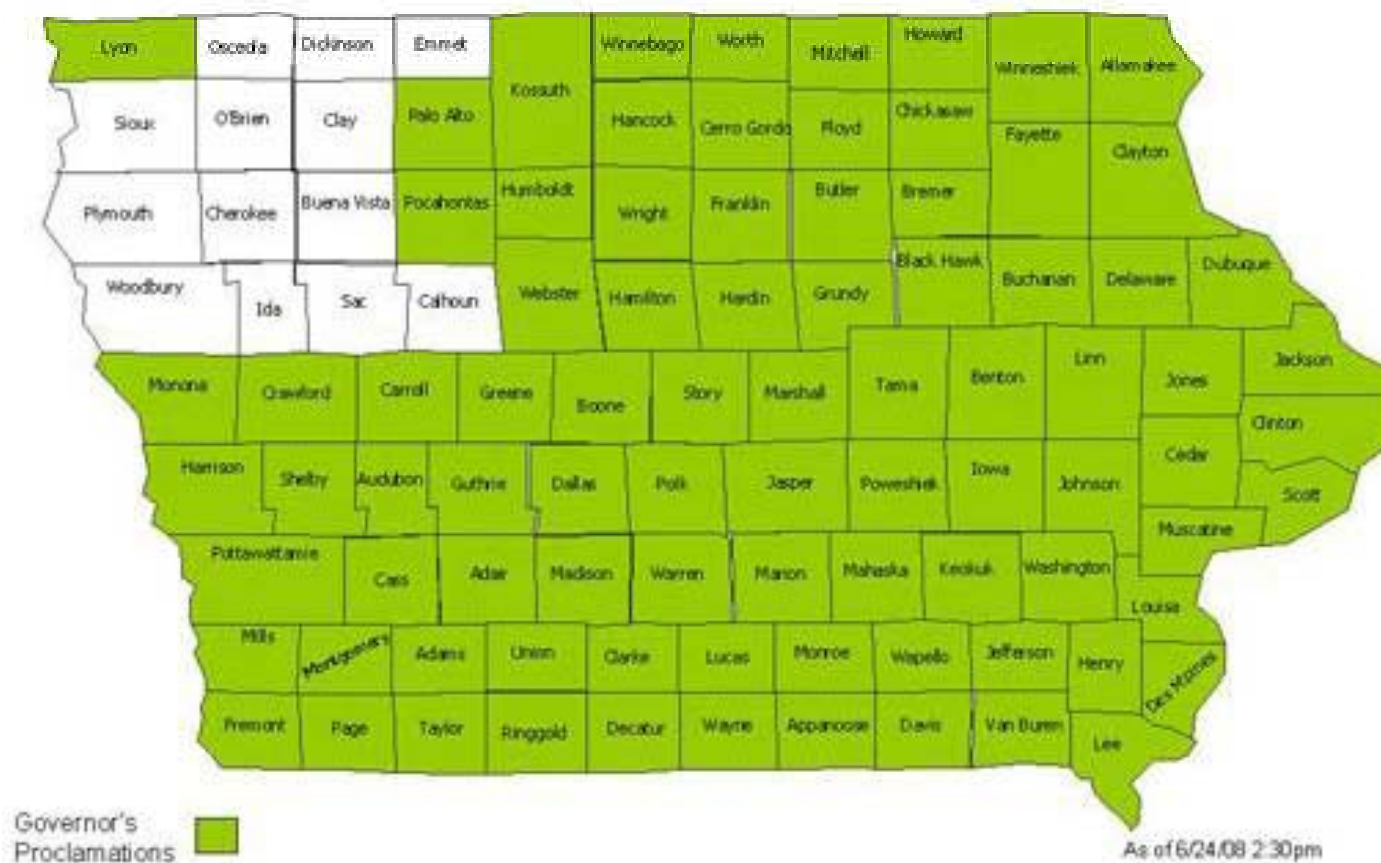
78 Counties -- Presidential Declaration



As of 6/27/08 5:00 pm

- Public assistance funds pay 75 % of
- approved cost of debris removal,
 - emergency services related to the disaster and
 - repairing or replacing damaged public facilities--roads, buildings and utilities.
- As of 6/27/08 5:00 pm

86 Counties under Governor's Proclamation



- Income up to 130 percent of federal poverty guidelines – eligible for up to \$3,319 grant for flood damage recovery

DNR Responds

- Priority 2: Keep Public Water Supplies Working



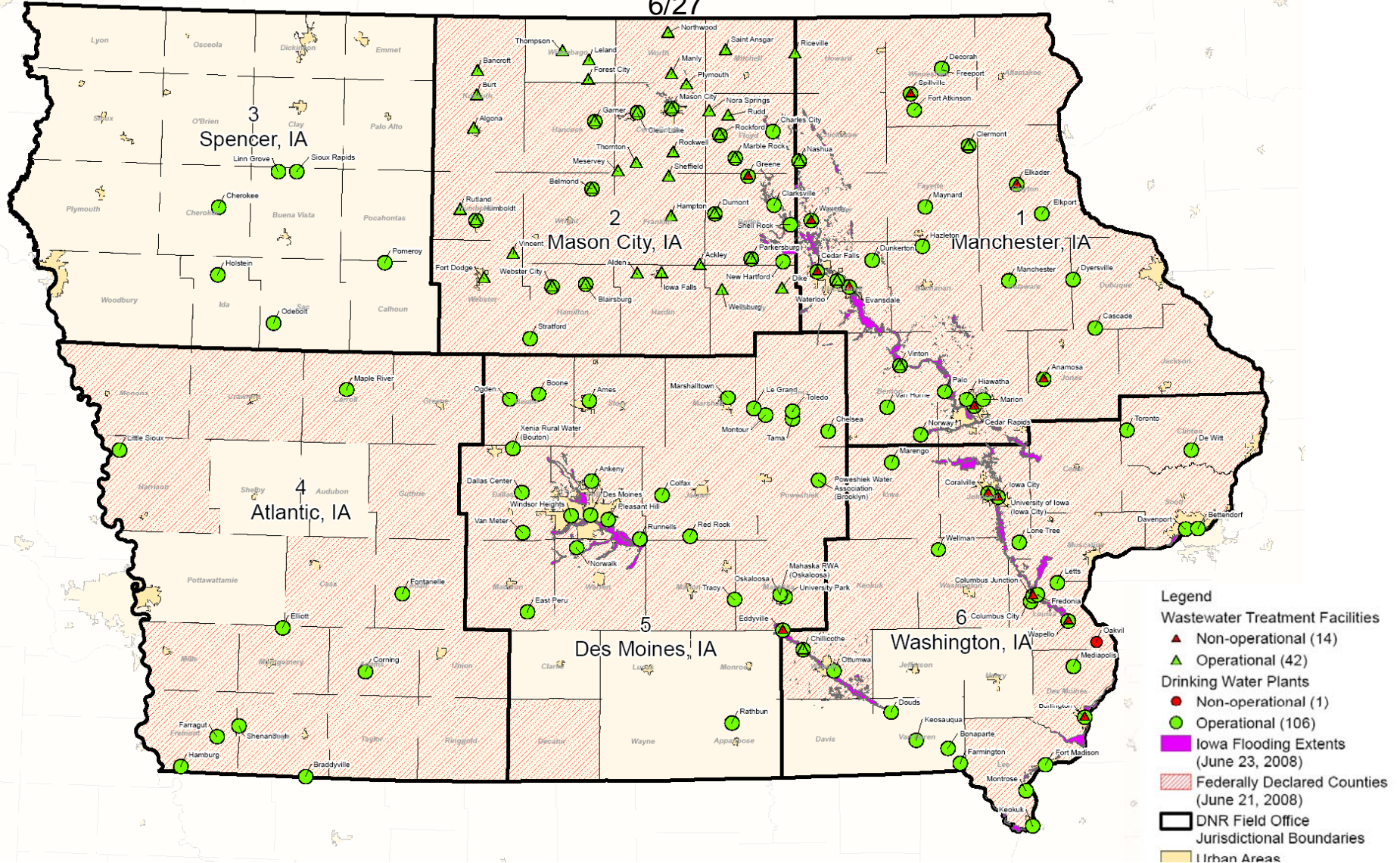
DNR Priorities

Priority 3 – Public Wastewater Treatment



Drinking Water and Wastewater Treatment Plants in Flooded Areas

6/27



Status – June 26

Legend


Wastewater Treatment Facilities


 Non-operational (14)

 Operational (42)

Drinking Water Plants

 Non-operational (1)

 Operational (106)

 Iowa Flooding Extents
(June 23, 2008)

 Federally Declared Counties
(June 21, 2008)

 DNR Field Office
Jurisdictional Boundaries

 Urban Areas

Mason City Example

- June 8 - Water treatment plant shut down due to flooding
 - 4.5 million gallon underground storage tank
 - 0.5 million gallon clear well
 - Lower part of plant
- June 9 – Clean-up began
 - No well heads submerged
 - Soft starts were damaged
 - Pumps ok, but electric controls damaged
 - Couldn't pump contaminated water to waste, because storage tanks might collapse
 - Decided to shock chlorinate
- June 10 – Found oil in test results, began pumping to tankers
- June 11 – results good, began restoring pressure
- June 12 – Pressure restored, flew water samples to Iowa City
- June 13 – all samples negative for bacteria



OAKVILLE
CITY LIMIT

WARNING



22,000+ Acres
34 miles square



















DNR Clean-up Priorities

4. Proper Debris Disposal
5. Safe and Proper Disposal of Underground Storage Tanks and Drums



Cedar Rapids-
houseboats



EPA Partnership

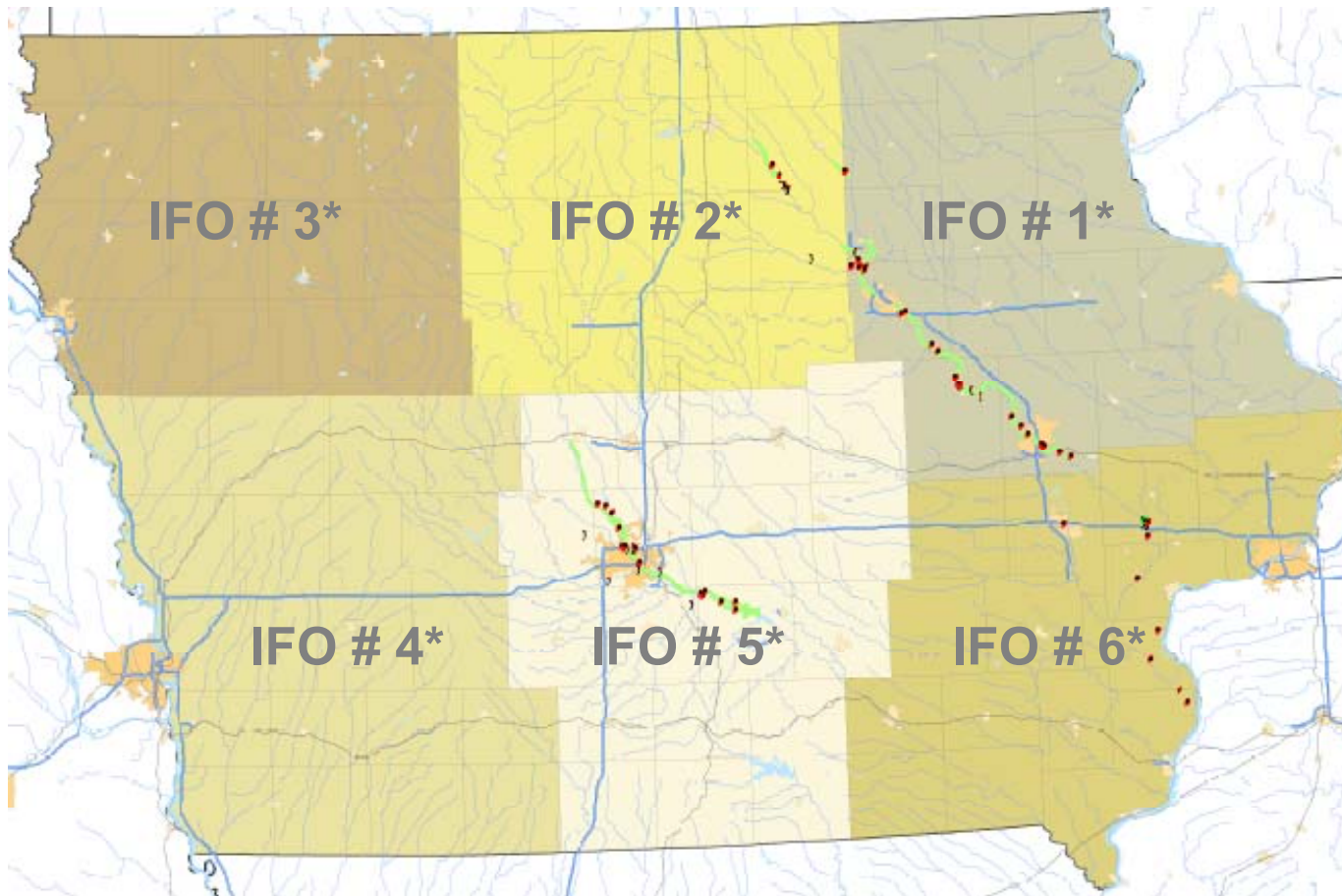
- Working with
 - DNR Conservation Officers
 - 71st National Guard Civil Support Team
- To retrieve orphan tanks and drums
- Brings \$5.5 M to Iowa for hazardous materials recovery





Reconnaissance Points of Interest

Identified by Land, Water, and Air



*State is separated into 6-areas referred to as Iowa Field Offices (IFO).



USTs





Iowa Field Office (IFO) # 1

Area photos and Water Recon Overlay



Recovery of Hazardous Materials

July 2 Status Report

	Container Type								
Field Office Staging Location	LPG Tank	Cylinders	Other Large Tank >85 gal	Drum 30-85 gal	Small Container 5-30 gal	Container ≤5 gal	E-Goods	White Goods	Location Total
Branch Field Office #1	332	268	14	1193	1461	38768	4261	2757	49054
Branch Field Office #2	0	0	1	23	412	28552	0	0	28988
Branch Field Office #6	18	71	2	238	5	8947	722	1334	11337
Category Total	350	339	17	1454	1878	76267	4983	4091	89379

Cedar Rapids - Wastewater



Air Quality Monitoring

- EPA using fixed monitoring equipment at 9 sites
- Outdoor air monitoring during clean-up, concerns - asbestos, open burning, disposal
 - Cedar Falls
 - Cedar Rapids
 - Fort Madison
 - Iowa City
 - Keokuk
 - Montrose
 - Parkersburg
 - Waterloo
 - Louisa County



Water Quality Monitoring

- So far, so good
- Results from 6/9 to 6/25 show relatively low levels of *E. coli*
 - *Upstream of Cedar Rapids: 86 – 13,000*
 - *Downstream of Cedar Rapids: 250 - 17,000*
 - *Downstream of Des Moines: 140 – 730*
 - *Downstream of Fort Dodge: 170 – 3,200*
 - *Downstream of Iowa City: 170 – 2,200*
 - *Downstream of Marshalltown: 20 - 170*

Levee Break –Maquoketa River north of Manchester



Dave Allen, DNR floodplains
Mark Nahra, Delaware County Engineer

DNR Property

- DNR crop losses, property damage: \$5.2 million (June 26)
- 20 State Parks damaged
- 4 Parks completely closed
- Campgrounds at Geode State Park hosting
 - Crews from Illinois working on Hwy. 34
 - Flood evacuees



Solid Waste

- Working with landfills – need additional capacity
- Coordinating with EPA on demanufacturing of appliances
- FO staff working directly with EPA staff – coordinating issues between locals and federal staff

Update – June 29

- Federally declared disaster counties increased from 77 to 78
- Public Water Supplies
 - Only one not operating - Oakville, IA, pop: 439
 - No remaining boil orders
- Wastewater Treatment
 - 14 plants remain off-line serving approximately 210,293





The drudgery is ahead. Cleanup
could take years.